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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,151	10/17/2001	Olivier Hersent	NCX-002 (6909/3)	6043

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Tiberiu Weisz  
GOTTLIEB, RACKMAN & REISMAN  
270 Madison Avenue  
New York, NY 10016-0601

EXAMINER

SIMITOSKI, MICHAEL J

ART UNIT PAPER NUMBER

2134

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/868,151	HERSENT, OLIVIER	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael J. Simitoski	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. The response of 8/18/2005 was received and considered.
2. Claims 1-10 are pending.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.
4. Applicant's response (pp. 6-7) argues that Shimbo does not disclose operation controls in an access interface of a subscriber installation. However, Shimbo discloses a router/gateway between a source and a destination, which acts as an access interface.
5. Applicant's response (pp. 7) argues that Oouchi only applies a control word/identification mark where the packets are in violation of a contract. For this reason, "each" packet as recited in the claims is understood to be interpreted as "every" packet.
6. Shimbo discloses a subscriber installation's access interface (source gateway) sharing a private key with a destination, which is a contract between the two. Every packet transmitted undergoes control operations/signatures using a shared secret and the signature is appended to every packet (cols. 11-12).

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5, physical access can only be denied/allowed to a physical object; therefore, “without physical access immediately upstream of a module of the integrated circuit” is unclear because it is unclear what physical access is limited to. *For the purposes of this Office Action and similarly to the previous Office Action, this limitation is understood to mean that the integrated circuit has no physical access.*

Regarding claim 5, “a module of the integrated circuit adapted to obtain the signature” is unclear because it is unclear whether the module or the integrated circuit is adopted to obtain the signature. *For the purposes of this Office Action, it is understood that a module of the integrated circuit obtains the signature.*

### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-4 & 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,092,191 to Shimbo et al. (**Shimbo**).

Regarding claims 1, 2, 6 & 7, Shimbo discloses carrying out, at an access interface of a subscriber installation/source side gateway (col. 11, lines 53-57), control operations/signature creation on streams of packets transmitted to a concentrating router/next router or destination side gateway (col. 11, lines 53-59), within the framework of a contract/shared keys between the subscriber and a manager of a shared network (col. 11, line 63 – col. 12, line 12), and after having carried out the control operations concerning a packet to be transmitted, transmitting said packet from the access interface/source side gateway to the concentrating router/next router or destination side gateway (col. 11, lines 53-59), each packet being transmitted with a signature based on a secret shared with the concentrating router (col. 11, line 63 – col. 12, line 12), authenticating that the packet has been subjected to the control operations/signature creation.

Regarding claims 3 & 8, Shimbo discloses the code word/authentication code calculated by hashing at least part of the content of the packet, involving the shared secret (col. 15, lines 35-40).

Regarding claims 4 & 9, Shimbo discloses enciphering using a private key/secret key (col. 15, lines 29-34).

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 5, as best understood, & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shimbo**, as applied to claims 1 & 6 above, in further view of U.S. Patent 5,726,660 to Purdy et al. (**Purdy**) and U.S. Patent 4,860,351 to **Weingart**. Shimbo lacks the signature and control operations carried out within a single integrated circuit. However, Purdy teaches that combining multiple functional components on a single integrated circuit reduces manufacturing costs significantly (col. 3, line 61 – col. 4, line 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to perform the signature and control operations on a single integrated circuit. One of ordinary skill in the art would have been motivated to perform such a modification to significantly reduce manufacturing costs, as taught by Purdy (col. 3, line 61 – col. 4, line 2). As modified, Shimbo lacks an absence of physical access immediately upstream of a module of the integrated circuit adapted to obtain the signature. However, Weingart teaches that providing an electronic circuit in a tamper-resistant package protects the information stored in the circuit (col. 3, lines 6-11). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an integrated circuit where there is no physical access. One of ordinary skill in the art would have been motivated to perform such a modification to protect the information stored in the circuit, as taught by Weingart (col. 3, lines 6-11).

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841.

The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The examiner can also be reached on alternate Fridays from 6:45 a.m. - 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached at (571) 272-3838.

**Any response to this action should be mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(571) 273-8300  
(for formal communications intended for entry)

**Or:**

(571) 273-3841 (Examiner's fax, for informal or draft communications, please label "PROPOSED" or "DRAFT")


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MJS

October 3, 2005

  
GREGORY MORSE  
SUPERVISOR, PATENT EXAMINER  
ELECTRONIC BUSINESS CENTER 2100